Most Frequent Reasons for Correction and Rejection of Plans During Plans Examination

The following is a list of the most frequent reasons why plans are rejected or require corrections and revisions during plans examination. Not all items apply to all projects. While not all inclusive, this list has been compiled to assist architects, engineers, contractors, and developers in avoiding the most common pitfalls. Our goal is to make the plan review and permitting process as efficient and expeditious as possible, while ensuring compliance with applicable codes and ordinances. The plans examiner may authorize deferred submittals under certain circumstances in order to expedite permits. In those specific cases, an inspection hold will be placed on some stage of the project and work may not proceed until the deferred item is submitted and approved. Plans must be complete and reflect how the project will actually be constructed.

Problems During Submittal

The following could result in plans not being accepted for review by the permits technician:

- Incomplete or unacceptable (illegible, do not reflect scope of work, etc.) plans (see checklist of required submittals).
- Plans not stamped or signed as required by state statute.
- Failure of design professional to coordinate submittals (i.e., building, structural, electrical, plumbing/mechanical plans are not in agreement).
- Individual submitting plans unable to provide required information to complete permit applications.

Problems During Plan Review
Current Planning
(Department of Planning and Development)

- Failure to submit plans per conditions imposed by the Planning Commission, Board of Zoning Adjustment, City Council or Planning Department regulations.
- Landscaping plans do not comply with requirements.
- Civil plans and architectural site plans do not match.
- Applicant “assumes” address, which is incorrect. Planning Department provides street addresses and suite numbers for new construction.
- Site plans and elevations different from those approved by Planning Commission and City Council.
- Inadequate number of parking spaces.

Land Development
(Department of Public Works)

- Civil plans not approved.
- Civil plans approved but not included in submittal.
- Flood study not approved.
- Flood study fees not paid.
- Offsite improvement bond(s) not posted.
- Offsite checking and inspection fees not paid.
- Traffic study not approved.
- Traffic signal contribution not submitted.
- Failure to satisfy all “Conditions of Approval” imposed by the Planning Commission and/or the City Council, Board of Zoning Adjustment or other reviewing body.

Architectural
(Department of Building and Safety)

- Failure to provide complete wet-sealed, signed professional drawings from each discipline for each submittal set.
- Failure to meet all requirements of Chapter 11, Appendix chapter 11, 2003 IBC and 1998 ANSI A117.1 or failure to provide a complete handicap site plan to include but not limited to:
    - Building-to-building access with hatched traffic crossings.
    - All required accessible exits not shown with an accessible route to the public way.
    - All curb ramps, other ramps and handicap parking signs not shown. Enlarged sections plan views, elevations as necessary not provided.
    - Failure to verify that the maximum slope in any direction for handicapped parking spaces and access aisles is 2%.
- Failure to submit a scaled and dimensioned accessibility site plan including:
    - An accessible route to all portions of the building.
    - Accessible building entrances.
    - Marked crossings at vehicular ways per ANSI 402.2. Ensure that 5% running slopes and 2% maximum cross slopes are maintained and indicated on the drawings. Changes in level must comply with ANSI 303. Submit revised drawings to reflect these requirements.
- Failure to provide code analysis or incorrect/incomplete information submitted. Must include all other buildings onsite. Information shall include but not limited to:
    - Occupant Classification. Compute the floor area and occupant load of the building(s) or portion thereof. See Table 1004.1.2. See Chapter 3 to determine the occupancy group that the use of the building or portion thereof most nearly resembles. See Section 302.3 for buildings with mixed occupancies.
    - Types of Construction. Determine the type of construction of the building by the building materials used and the fire-resistance of the parts of the building. See Chapter 6.
    - Location on Property. Determine the location of the building on the site and clearances to property lines and other buildings from the plot plan.
    - Allowable floor area. Determine the allowable floor area of the building. See Table 503 for basic allowable area based on occupancy group and type of construction. See Section 506 for allowable increases based on location on property and installation of an approved automatic fire sprinkler system. See Section 506.4 for allowable floor area of multistory buildings. See 705.1 for uses of fire walls.
    - Height and number of stories. Compute the height of the building. Section 502.1, and the number of stories. See Table 503 for the maximum height and number of stories permitted based on occupancy group and type of construction. See Section 504 for allowable story increase based on the installation of an approved automatic sprinkler system.
- Failure to separate storage from water heater room at patio (apartments and condos).
- Drawings do not illustrate combustion air vents in the water heater room when required.
- Provide this information on the architectural drawings.
- Failure to provide cut sheets noting net clear vent area of attic vents.

- The plumbing plan specifies a Type-M copper whereas only Type L will meet listing requirements.
- Failure to provide full-height fire wall section with assembly listing reference and instructions. Remember the building can have no structural dependency on the fire wall. The structural engineer isn't made aware of the fire wall and therefore doesn't design accordingly.
- Required separation of exits for half the diagonal distance in tenant improvements not shown.
- Failure to provide exit analysis on an overall floor plan review.
- Failure to complete grease duct shaft information to include:
    - Length of run.
    - Methods of support.
    - Structural calculations or analysis.
    - Manufacturer specifications for hood.
    - Listings on the drawings keyed from the shaft details for the assembly of the fire-rated shaft.
- Use of signature stamps on plans (must be an original signature).
- The architect fails to proofread his drawings (wrong or missing sheet).
- Project manuals not submitted with package. Plans reference the manuals.
- Interstitial spaces not shown on architectural/structural sets. Usually discovered from the mechanical and electrical sets.
- Misidentified current code references. Examples include 1997 Uniform Code when 2003 IBC is currently in effect.
- Door hardware schedule not correct/consistent with drawings - show type of levers, fire rating, size, etc.
- Restroom fixture count under the required number noted in the building code.
- Utilizing foam plastic for interior finish.
- Corridors open or proceeding through intervening rooms not permitted by code.
- In high rises, a method for vertical fire spread containment not provided as required.
- Plans do not follow requirements of life-safety report when one is provided.
- Elevator hoist-way venting, when required, is not noted.
- Spacing of rails in a stair is often mislabeled to have openings wider than the current code permits.
- Exit signage on the electrical sheets is not coordinated with the architectural exit analysis.
- Failure to meet the minimum Model Energy Code requirements or energy code calculations are incorrect.
- Insufficient natural light and ventilation in habitable rooms.
- Commercial buildings not analyzed for energy efficiency by the OTTV format where component performance is used, in addition to the U-sub-o-format.
- Failure to provide approved listed assemblies for all walls, floor/ceilings, roof/ceilings, penetrations, shafts, etc. They shall be provided as assembly instructions directly out of listing directories. Failure to Submit UL listed (or equal) fire stop systems for each specific type of through or membrane penetration at rated wall and/or floor system (include F and T Ratings as applicable). Provide actual copies of all listed penetration details from the listing publication and incorporate these details on the design documents of record; DO NOT RETYPE (or write) in information. Failure to submit UL listed (or equal) 1-hour rated wall, floor, roof or ceiling and/or ceiling systems. Provide actual copies of all details from the listing publication and incorporate these details on the design documents of record; DO NOT RETYPE (or write in) information. Properly key these listings to related details.
- Insulation types and/or sizes called out on plans don't match MEC submittal.

- Egress from bedrooms into a patio or balcony that is not open on three sides.
- Incorrect size of window for bedroom emergency egress.
- No landing at stairs over 12 feet in height.
- Size of windows not called out.
- Type of operability of windows not called out.
- Landing not called out when swing of door requires one.
- Not allowing proper clearances in conventionally stacked roofs for attic ventilation.
- Civil, landscape and architectural site plans don't match.
- Details for draft-stopping not included.
- Sheet vinyl used on floors (need appeal to Building Official, bathrooms only, comply with 1210).
- If hazardous chemicals used, no list of products (MSDS Reports).
- In the plan submittal package, the ventilation data sheets don't match the ventilation schedule that is called out on the plans.
- Complete architectural information for patio covers needs to be provided in addition to the structural package that is submitted. This would include elevation of the patio cover where it is attached to the house. It would also include roof covering information, exterior and a sectional cut from slab through the roof.
- For tenant improvements, all plans should have dimensions for the entire suite clearly indicated on the plans.
- For tenant improvements, list the names and types of the occupancies that are located directly adjacent to each side of the project being reviewed.
- Failure to provide parking signs at the accessible stalls. They are required to be placed at a height of more than 48-inches and 60 inches, for regular accessible parking spaces and van accessible parking spaces respectively. Provide characters at the proportion and height required by ANSI table 703.2.4.
- Failure to provide sidewalk ramp details with grade slopes indicated. Sidewalk ramps must be located ahead of the access aisles. When wheelchair users have to negotiate *across* the ramp, occurring within the accessible rout of travel, the accessible route of travel must meet the 5% maximum running slope and 2% maximum cross slope requirement, or be considered a ramp requiring handrails.
- Failure to provide not less than two accessible means of egress from each accessible portion of the building served. As required by Chapter 11, 2003 IBC, the floor or landing cannot be more than ½" (1/8" for non accessible doors) lower than the threshold of the doorway. Provide threshold detail.
- Failure to provide door-maneuvering clearances on the pull and push side of the door, per ANSI 404.
- Construction joints installed in fire-resistive walls that are required to have protected openings, or fire resistive floors or floor-ceiling assemblies, not protected with an approved material or construction assembly designed to provide the same degree of fire resistance as the floor or wall in which it is installed per Section 713 2003 IBC.

Structural
(Department of Building and Safety)

- Structural plans do not agree with the structural calculations.
- Plans not coordinated between the design professionals.
- Special Inspection requirements not clearly shown on the plans as required.
- The design professional is not familiar with the local ordinances.
- The design professional is not following the soils test report requirements.
- The design professional is not following the product listing requirements.
- The design professional is not reviewing work of his/her subordinates.

- Plans and calculations are not stamped, signed and dated in accordance with the Nevada Administrative Code requirements.
- Pre-Engineered truss designs do not agree with the structural plans (i.e. loads, spans, bearing points) do not agree.
- Exterior curtain walls, cladding, veneer and glazing are not designed as required.
- Structural designs for the exit facilities (stairways, stringers, guardrails, handrails, connections, etc.) are not provided as required.
- Structural designs for the pre-cast concrete components are not provided as required.
- Clear load path is not provided as required.
- Failure to provide all applicable dimensions (to scale) with no conflicting dimensions between plans, section, and details.
- Failure to provide lateral analysis per 2003 IBC Section 1605.1.
- Failure to provide design calculations and details for balcony railing per Table 1607.1 of the 2003 IBC.
- For Stick Frame - Failure to provide appropriate connections on the working drawing for the following areas:
    - Proposed ridge and rafter to existing roof, due to lateral loads.
    - Ridge tie-strap between rafters, due to lateral loads.
    - Rafter-to-joist-to top plates, due to thrust force.
    - Missing re-bars on footing details.
- In reference to NAC 625.550:
    - Removal of existing (load bearing or shear) wall needs to be replaced by structural members to support vertical and lateral loads on both existing and proposed area.
    - Missing header for new openings.
    - Missing lateral analysis for both directions.
    - Missing footing design.
    - Missing essential structural details.
- Failure to provide details of the connection of the soffitt showing positive connection onto the ceiling.
- Failure to provide kitchen exhaust hood and grease duct supports system design with the appropriate details. (Also, check sufficient clearance between trusses.)
- Failure to provide structural design for all partitions and interior walls per 2003 IBC, Section 1607.13 with appropriate detail showing connections to the structural ceiling and floor members.
- Failure to provide structural calculations and details for mobile trailer skirt. The skirt will serve as a retaining wall.
- Failure to provide chord forces design and connection between the horizontal diaphragms and the exterior walls or beam.
- Failure to provide magnitude of the drag strut force along shear wall line with appropriate connector.
- When soils report indicates that “the onsite soils possess sufficient concentration of salts to be considered corrosive to concrete” appropriate construction notes for concrete mix not provided.
- Delays in submitting truss calculations, including layout and truss-to-truss connections, sealed and signed by a Nevada Licensed Professional Civil or Structural Engineer. These calculations shall include vertical loads, drag loads and any uplift loads from shear wall and shall be reviewed by the “Engineer of Record” prior to submittal to the Building Department.
- Truss layout plan not consistent with framing plan:
    - Missing loads from exterior wall and high roof.
    - Improper dimensions, etc.
- Truss calculations, although bearing the review of stamp of the engineer, are often times not actually reviewed (i.e., drag loads, additional vertical loads, mechanical equipment).
- Structural working drawings are not compatible with details and calculations.

- Delays in submitting the special inspection letter and agreement. This often results in delays in permitting and starting construction.

Plumbing and Mechanical
(Department of Building and Safety)

- Did not provide complete, clear and legible plans.
- Ink or pencil on the plans. Submitted plans must be reproductions, properly wet signed.

For TI Plans:

- Did not provide mechanical plans when walls are being added to already conditioned tenant space (to show air to all areas of the space).
- Did not clearly define if HVAC equipment is existing, or type and BTU input with associated gas piping and/or condensate drainage if new.
- Did not provide unit and/or register CFM.
- Did not provide the requirements of 2003 IBC, Chapter 12 modifying ordinance. Example: No exhaust fan at bathroom, no outside air.
- Did not clearly define location, presence, or size of existing fixtures, piping, etc.
- Did not provide new piping to its point of connection to the existing, and sizes at all locations.
- Did not provide a material list. Did not provide duct insulation value.
- Did not provide listed rated assemblies for penetrations and dampers at rated walls.

For Residential Plans:

- Did not provide the type of the HVAC equipment and/or water heater. [Gas/electric, split system or package unit, size (gallons) of water heater, etc.]
- Did not provide a material list. Did not provide duct insulation value.
- Did not provide register CFM. Did not provide exhaust fan CFM. Did not provide exhaust fans at separate water closet compartments and/or bathroom tub and shower areas as required per 2003 IBC, Chapter 12 modifying ordinance.
- Locations of equipment do not agree between plumbing and mechanical plans (FAU locations, etc.).
- Did not provide combustion air to gas equipment placed in confined spaces (detailed).
- Did not provide manufactured fireplace cut sheets with the input BTU demands or that match the make/model called for on the plans. Did not size gas piping using actual fireplace BTU demands. (Used 25,000 log lighter value when actual demand exceeds this value.)
- Did not provide gas, DWV and/or water pipe sizes at all locations.
- Did not show venting of the plumbing system.
- Did not properly size piping for the actual total developed length.
- Did not provide the location of the water meter and/or sewer lateral or the locations on the site plan did not agree with the plumbing plans.
- Did not show water heater T and P drain.
- Plans submitted by person not authorized by statute to sign or submit plans.
- Subdividing commercial subdivisions without redesigning utilities.
- Cut sheets and factory installation manuals are not submitted when required.
- Health District letter of memorandum is not submitted with plans when food or beverage areas are shown on plans.
- Pipe sizes are not given.
- ISO drawings are given instead of line drawings.

- When water is sized per the 2000 UPC Appendix “A”, the information needed to evaluate the system is not on the plans.
- Kitchen hood and grease duct/shaft drawings are missing or incomplete.
- When using a grease interceptor, the required letter from the owner giving the hours of operation is not with plans.
- Calculations for sizing grease interceptors, water piping, and air flow calculations for hoods are missing from the plans.
- Seating plans are missing for restaurants.
- CFM, BTU, make and model missing from HVAC plans.
- Equipment and material schedules missing from plans.

Electrical
(Department of Building and Safety)

- Failure to provide a single line diagram.
- Failure to provide service and load calculations to include all short circuit and fault current calculations for all panels.
- Failure to provide panel schedules and descriptions of circuits with connected loads, panel ratings and feeder size.
- Failure to show all outlets, smoke detectors, equipment and feeders on the plan with appropriate panel and circuit numbers at devices.
- Failure to show emergency power system, type and model.
- Failure to show voltage drop calculations for all feeders to sub-panels, panels, area lighting, free standing signs and air conditioning units.

Fire Service
(Department of Building and Safety)

- Not having approved civil drawings included in the submitted set of building plans. We will not approve any building submittals unless the approved civil drawings are included.
- Not having the appropriate Material Safety Data Sheets (MSDS), Hazardous Material Inventory Statement (HMIS) and Hazardous Material Management Plans (HMMP) for warehouse and storage projects. This applies only to those specific occupancies and not to all building submittals.
- Not having the Rack Storage and Shelving Plans identifying the exact height, spacing, location, etc. only to those specific occupancies and not to all building submittals.
- Not having Fire and Life Safety package or the Smoke Management System Design and Calculation package submitted with the building plans for high-rise buildings or major projects requiring such submittals.

Additional Delays

After plans have been approved by all agencies and disciplines, the permit technicians will review them for completeness, price out projects and ready plans and permits for issuance. They will notify the responsible party that the plans are approved and the permits are ready to be issued.

Additional delays in obtaining permits may be experienced if:

- Construction valuation has not been provided.
- Additional revisions are submitted prior to permit issuance.
- If plans are “design/build”, contractor other than the one who designed the projects attempts to pull permits (also applies to subcontractors). This does not apply if licensed architect, residential designer, engineer or other design professional prepared the plans.

- No contractors' license or license is revoked, suspended, wrong classification, insufficient limits for project. No city of Las Vegas Business License.
- For owner/builder (residential only) projects, persons other than owner attempts to pull permit (notarized letter from owner required).
- Wrong check amount; no company check (reason: Former employees sometimes attempt to obtain permits against previous employer's license.)

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